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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
08/657,750	05/30/96	MADNICK	S	MIT-058

LM02/0210

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EXAMINER
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ART UNIT	PAPER NUMBER
2783	18

DATE MAILED: 02/10/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

	Application No.	Applicant(s)
Office Action Summary	08/657,750	Madnick et al.
	Examiner W. Davis	Group Art Unit 2783

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE ____3____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on __12/17/98__ .

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) __1-38__ is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) __1-38__ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____ .

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Notice of References Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

1.   The request filed on 12/17/98 for a Continued Prosecution

Application (CPA) under 37 CFR 1.53(d) based on parent

Application No. 08/657,750 is acceptable and a CPA has been

established.   An action on the CPA follows.

2.   Claims 1-38 are pending in the application.

3.   The sections of Title 35, U.S. Code which are missing can be

found in an earlier Office Action.

4.   Claims 1-38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Adair et al. (Patent #5,416,917) in view of

Cohen et al. (Patent #5,590,319) and Noble et al. (Patent

#5,634,053).

     As to claims 1 and 14, Adair discloses a system comprising a

request translator for translating into a second data context

(267, fig.5; col.13, line 33, et seq.), and a data translator for

translating received data into the data context associated with

the request (279, fig.5; col.13, line 52, et seq.). Adair does

not specifically disclose the request translator translating a

request into a query. Cohen discloses the translation of a

request into a query (col.12, line 52, et seq.). It would have

been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate Cohen's query generation into

the Adair system because such is necessary for the accessing of

the data from the database of Adair. Adair also does not

explicitly show that the data contexts are semantic data

contexts. Noble teaches a system in which translators can

translate from one semantic data context into a second semantic

data context (col.7, lines 24-34 : as explained by the Applicant

on page 5 of the response, "an associated semantic data context

is the set of assumptions made by a data source or receiver

regarding the meaning of data, e.g., the units in which the data

is stored." The conversions performed by Noble (i.e. converting

meters to miles) are sufficient to teach the claimed limitation).

It would have been obvious to one of ordinary skill in the art at

the time the invention was made to incorporate the teaching of

Noble into Adair because the translators of Noble would enable

the system of Adair to provide the true integration of

heterogenous databases, which is a primary goal of Noble.

As to claims 2,15,27, Adair discloses the request being

received by the request translator (265, fig.5).

As to claims 3,16,28, Adair discloses generation of the

request (including, *inter alia*, 260, fig.5).

As to claims 4-5,17-18,29-30, Adair does not specifically

disclose the request translator determining at least one

heterogeneous data source. Cohen discloses determining from the

request (or ontology) the at least one heterogeneous data source

(col.13, line 64, et seq. and col.3, lines 37-53). It would have

been obvious to one of ordinary skill in the art at the time the

invention was made to include Cohen's determination step and

parallel database engines in the Adair system because such would

increase the throughput of the Adair system by allowing for

parallel processing of the database request.

As to claims 6,19,31, Adair discloses the detection of a

difference in context (col.4, line 61, et seq.).

As to claims 7,20,32, Adair discloses the conversion being

accomplished by a pre-defined function (this would relate to the

conversion process - col.13, line 33, et seq.).

As to claims 8,10,21,33,35, Adair does not specifically

disclose optimizing the query. Noble discloses an optimizer (38,

fig.2) that is used to optimize the query (col.8, line 51 -

col.9, line 6). It would have been obvious to one of ordinary

skill in the art at the time the invention was made to

incorporate the query optimization of Noble into the Adair system

because such would increase the throughput of the Adair system by

inherently allowing for faster processing of queries.

As to claims 9,22,34, Adair does not explicitly show a query

transmitter. Noble teaches a query transmitter which queries at

least one of the heterogeneous data sources using the query (DIM

20, fig.1; col.16, lines 54-61). It would have been obvious to

one of ordinary skill in the art at the time the invention was
made to incorporate the query transmitter of Noble into the
system of Adair because such would increase the throughput of the
Adair system by allowing for parallel processing of the database
request. Furthermore, the completeness of a given search is
increased with such a configuration, which is a goal of Noble.

As to claims 11-12,23-24,36-37, Adair does not specifically
disclose the query being separated into sub-queries which are
transmitted to different data sources. Cohen discloses the query
being separated into sub-queries which are transmitted to
different data sources (col.10, line 45, et seq. and col.13, line
64, et seq.). It would have been obvious to one of ordinary skill
in the art at the time the invention was made to include Cohen's
query splitter and parallel database engines in the Adair system
because such would increase the throughput of the Adair system by
allowing for parallel processing of the database request.

As to claims 13,25,38, Adair discloses the conversion by the
data translator being performed by a pre-defined function (this
would relate to the conversion process - 279, fig.5).

As to claim 26, Adair does not specifically disclose the
translators being computer-readable program means. Noble
discloses translators that are implemented using computer-
readable program means (col.7, lines 45-47). It would have been

obvious to one of ordinary skill in the art at the time the

invention was made to implement the translators of Adair in

either hardware or software as was done in Noble because the

utilization of hardware or software is simply a design choice.

5.   The prior art made of record and not relied upon is

considered pertinent to applicant's disclosure.

      Demers et al. (Patent #5,278,978) discloses a system that

changes semantics depending on the database.

6.   Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Walter

Davis whose telephone number is (703) 305-9670.

      Any inquiry of a general nature or relating to the status of
this application should be directed to the Group receptionist
whose telephone number is (703) 305-3900.

Walter D. Davis Jr.

February 8, 1999